

NON-SPECIFIC URETHRITIS*

BY

C. P. HANDFORTH†

From the Royal Air Force Institute of Pathology and Tropical Medicine, Halton, Bucks

Non-specific urethritis is a venereal disease of unknown aetiology, diagnosed by excluding specific infective agents such as the gonococcus.

Tetracycline antibiotics are most commonly used for treating non-specific urethritis, but the selection of patients for treatment is arbitrary. The present extensive use of antibiotics has been criticized by Harrison (1955) who has suggested that these drugs should be reserved for patients who fail to improve with simpler treatment.

This paper is an account of the results obtained by reserving antibiotics for such patients and for those with severe symptoms and signs.

Material

All the patients were young male adults seen during a period of 2 years at a Service hospital in the Far East. The criteria for a diagnosis of non-specific urethritis were urethral discharge and pyuria for which no cause could be demonstrated.

Severe urethritis caused a profuse yellow discharge which could be seen whether or not the patient had recently passed urine. The urine contained so much pus that it was turbid even after the addition of dilute acetic acid.

Very mild urethritis was often difficult to demonstrate. Patients with this condition had a single drop of discharge in the morning before passing urine and only a few threads of pus in the urine.

Treatment

During the first year, all patients found to have non-specific urethritis were treated with antibiotics irrespective of the severity of the disease. During the second year, patients with profuse discharge and/or gross pyuria were treated with antibiotics. The remainder, with mild urethritis, were kept under observation and treated only if their symptoms and signs became worse or failed to improve after one month.

Patients with mild urethritis must be kept under observation. Repeated microscopic examination of the discharge is necessary to exclude gonorrhoea which has a wide range of severity and always requires active treatment. (Bittiner and Horne, 1955).

All patients were requested to drink 6 to 8 pints of non-alcoholic fluid every day, to provide natural irrigation of the urethra. Artificial irrigations were not used as they might have caused retrograde spread of the inflammation.

The patients were examined finally 3 months after the initial attendances. They were considered cured if they had no symptoms of urethritis, no demonstrable discharge in the morning before passing urine, and no threads of pus in the urine.

Results

Patients with mild catarrhal urethritis outnumbered those who were severely affected and responded differently to treatment. Those with severe urethritis improved rapidly when treated with antibiotics, but a residual mild urethritis often persisted for a few weeks after treatment. Those with mild urethritis were relatively unaffected by antibiotics and, like those with severe urethritis, often had persistent catarrh after treatment.

During the second year 377 patients were seen with urethral discharge; 102 (27 per cent.) had gonorrhoea, and 275 (73 per cent.) non-specific urethritis. Of the patients with non-specific urethritis, 56 (20 per cent.) were severely affected and were treated with antibiotics; the remaining 219 (80 per cent.) had mild urethritis and were not treated. Thus the number treated with antibiotics was only half the number treated for gonorrhoea during the same year.

Approximately 25 per cent. of all the patients with non-specific urethritis had intermittent symptoms and signs persisting for one month after their initial attendance. These so-called relapses invariably resolved without active treatment. Severe

*Received for publication December 3, 1957.

†Now at the Pathology Department, Dalhousie University, Halifax, Nova Scotia.

"relapses" were always admitted to be re-infections. All who had avoided re-infection were found to be free from symptoms at the end of 3 months' observation. Occasional patients had excess polymorphs in their prostatic fluid but otherwise all were free from signs of urethritis.

Discussion

Willcox (1955) stated that about 30 per cent. of patients relapsed after treatment for non-specific urethritis; but Gartman and Leibovitz (1955) found that the reappearance of a profuse purulent discharge was almost *prima facie* evidence of re-infection. They considered the reluctance of patients to admit re-exposure had given non-specific urethritis an undeserved reputation for being refractory to treatment. The present findings are in agreement with those of Gartman and Leibovitz, and the success in treatment is in sharp contrast with Willcox's experience.

It may be thought that patients who recovered without treatment were in fact normal and did not have non-specific urethritis. The limits of variation of normal urethral secretions are uncertain; Grimble and Csonka (1955) stated that it was difficult to distinguish between a mucoid inflammatory exudate and an excess of normal secretions.

This difficulty causes variations in the apparent incidence of non-specific urethritis. Harkness (1950) stated that the presence of numerous epithelial cells

and bacteria in urethral fluid was abnormal and found that at least 70 per cent. of his patients had non-specific urethritis. Durel and Siboulet (1954) regarded some of their patients as having non-significant discharges and diagnosed non-specific urethritis only half as frequently as gonorrhoea.

Summary and Conclusions

During one year 275 patients were seen with non-specific urethritis: 56 (20 per cent.) were severely affected and were treated with antibiotics; the remainder had mild symptoms and signs and were treated conservatively. Each of these patients recovered without serious complications during the 3 months for which he was observed. It is therefore concluded that it is unnecessary to use antibiotics for treating every patient who has non-specific urethritis, and it is suggested that antibiotics should be reserved for those severely affected.

I wish to record my thanks to Air Commodore W. P. Stamm for his help in preparing this paper, and to the Director General of Medical Services of the Royal Air Force for permission to publish it.

REFERENCES

- Bittiner, J. B., and Horne, G. O. (1955). *Brit. J. vener. Dis.* 31, 155.
 Durel, P., and Siboulet, A. (1954). "Symposium sur les urétrites non-gonococciques", Monaco. W.H.O./V.D.T./121.
 Gartman, E., and Leibovitz, A. (1955). *Brit. J. vener. Dis.*, 31, 92.
 Grimble, A., and Csonka, G. W. (1955). *Ibid.*, 31, 228.
 Harkness, A. H. (1950). "Non-gonococcal Urethritis", introductory paragraphs. Livingstone, Edinburgh.
 Harrison, L. W. (1955). *Brit. J. vener. Dis.*, 31, 65.
 Willcox, R. R. (1955). *Ibid.*, 31, 89.